

a catalyst for the competitive growth



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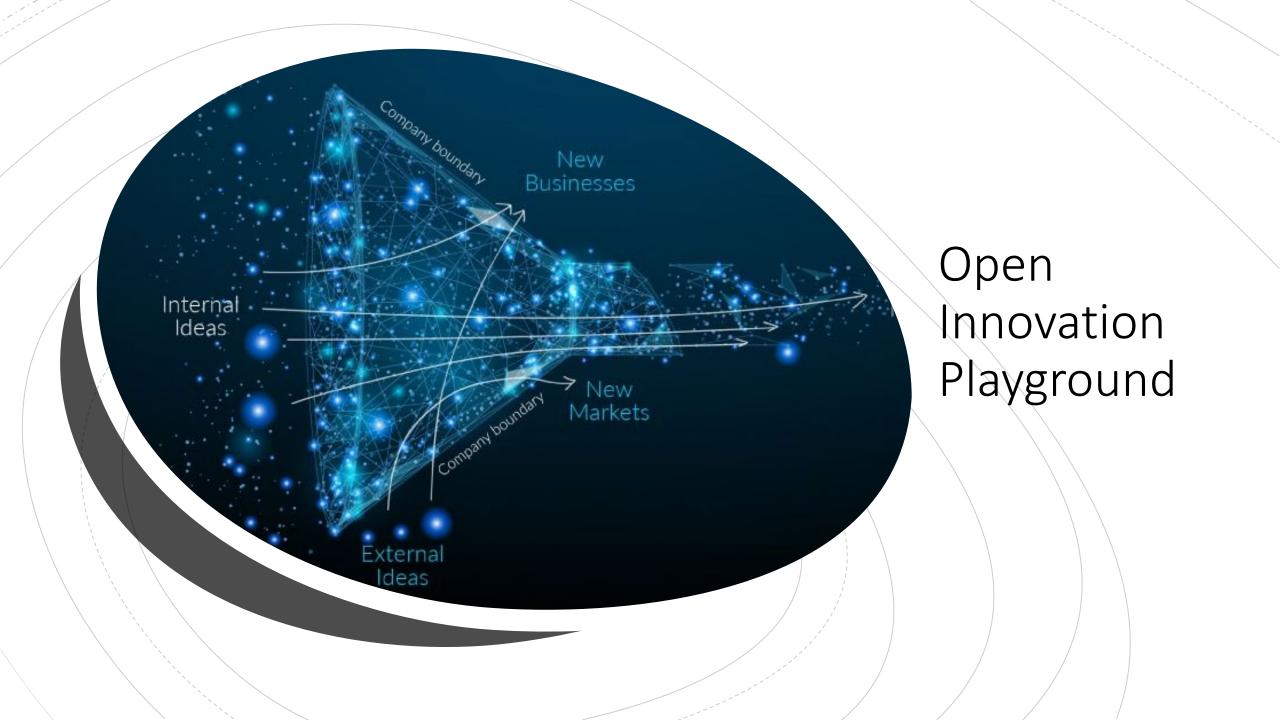
### The university

- Politecnico di Milano
  - 46 324 students
  - 1 400 faculty staff
  - 1 200 administrative staff
- Lecco Campus of Politecnico di Milano is experimenting innovative actions with SMEs



### Lecco Territory

- More than 4900 manufacturing firms
- Great capability for innovation
- SMEs with higher profitability rates WRT larger companies





## Issues to address





IDENTIFICATION OF BEST CONDITIONS FOR COLLABORATION

INSTRUMENTS TO COLLABORATE WITH MANUFACTURING SMES





**Awareness** 

## Absorptive capacity

- The scientific knowledge of university researchers is not sufficient to promote the collaboration
- The company must be in the right condition to absorb knowledge from the innovation partner
- The compulsory condition for the success of an open innovation process is the absorptive capacity
- How to reach the final stage (exploitation) in the shortest possible time?

Acquisition Assimilation Transformation Exploitation











**SOCIAL** 







**COGNITIVE** 





## Pull mechanism: questionnaire



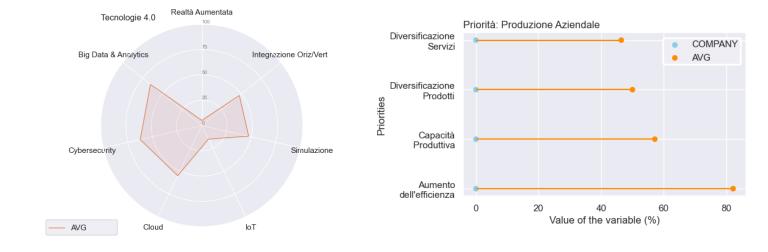


# The questionnaire structure

- 7 sections
  - Company profile
  - Company dimension
  - R&D Capabilities
  - Organization and management
  - Industry 4.0 skills
  - Intellectual Property Management
  - Innovation strategies
- 52 questions
- Psychological profiling
- https://www.16personalities.com/



## Results: company profile



Descriptive statistics

Comparison with other companies' performances

Identification of absorptive capacity and the proximity dimensions



# Push mechanism: tech talks

TECH TALK

### Recording of "Measurements, IoT and condition based monitoring"

Temperature and vibration measurements have always been used to describe the state of machineries and the paradigms of I4.0 (wireless sensors, machine learning, big data and cloud-based analysis) increase the [...]

Mechatronics, Metalworking

TECH TALK

#### Recording of "Circular economy business models - towards sustainable production and consumption"

High-sounding and inspiring, the concept of Circular Economy to date is still poorly integrated into industrial practice. The goal of the webinar is to provide a clear definition of the [...]

Chemical-plastic, Life science, Mechatronics TECH DAY

### TECH DAY "Digitization in SMEs: technologies and new opportunities"

The team of the project "PMI-NWTWORK" promotes a Tech Day as a moment of meeting and confrontation on topics related to product innovation, process and supply chain, with a focus [...]

Chemical-plastic, Life science, Mechatronics, Metalworking TECH TALK

### Recording "The impact of COVID-19 emergency on PMI: economical and financial aspects"

As the trend statistics show, the shutdown of activities due to the COVID-19 emergency has generated a worrying impact on the income and liquidity situation for Italian companies, especially for [...]

General topic

#### TECH TALK

### Recorded event "Collaborative robotics for SMEs: an accessible and flexible solution"

In a context where uncontrollable pandemics are disrupting production systems around the world, we have a weapon that can allow us to remain operational and flexibly adapt production to changing [...]

Mechatronics

#### **EVENT**

### PMI Network presentation during APITech on "Internet of Things data and Machine Learning analysis"

During the online seminar organized by API for May 21, 2020 on the potential of IoT and Machine Learning in industrial production (See the poster), the project Interreg Italia-Svizzera PMI [...]

General topic

#### TECH TALK

### Recording "EU funding for SMEs: opportunities and challenges"

EU funding for SMEs is both an opportunity and a challenge. Firms can access resources to fund applied research and innovation initiatives and at the same time join international networks. [...]

General topic

#### TECH TALK

### Recording of "Measuring environmental impacts for more sustainable products and processes"

In response to the increasing pressure to which companies are subjected by the market and the supply and distribution chain, the seminar introduces the issue of measuring environmental impacts at [...]

Chemical-plastic, Life science,



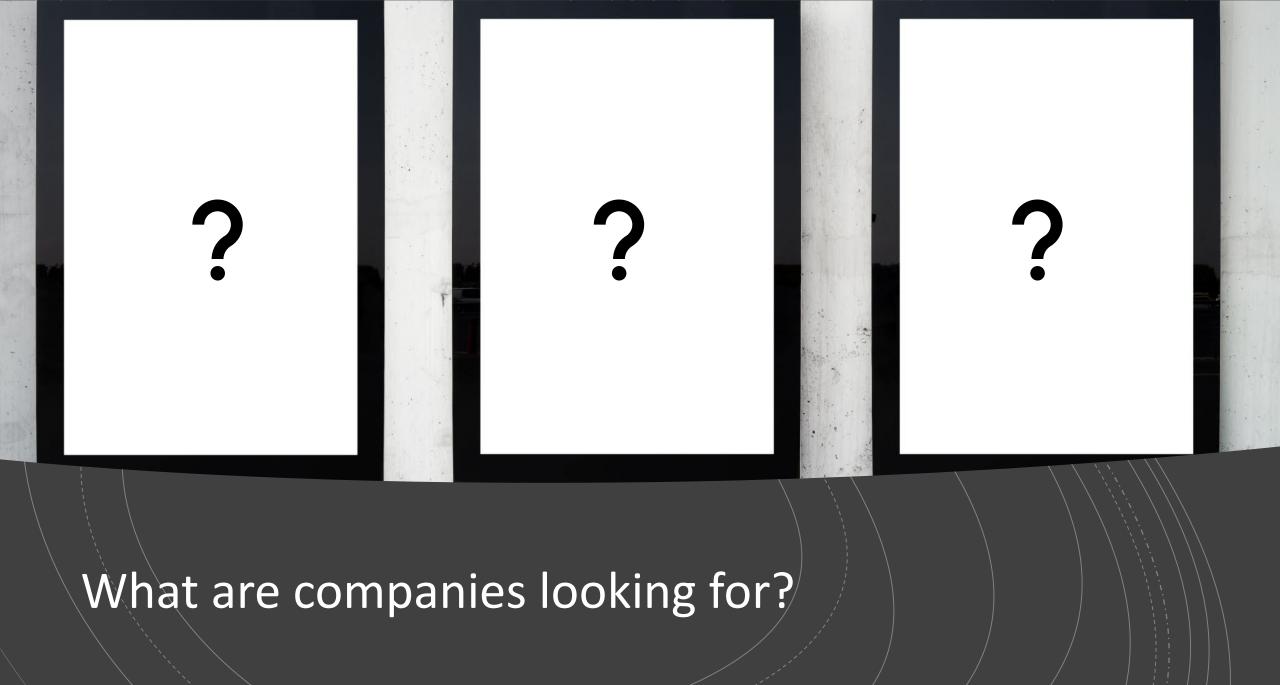
### Results

### 4 months of PMI Network

- 12 tech talks
  - 312 companies
  - 432 contacts
- 44 questionnaires
- 3 new collaborations

No correlation between tech talk participants and new contacts

Best results with uniform audience (only for R&D, only for CEO, ...)



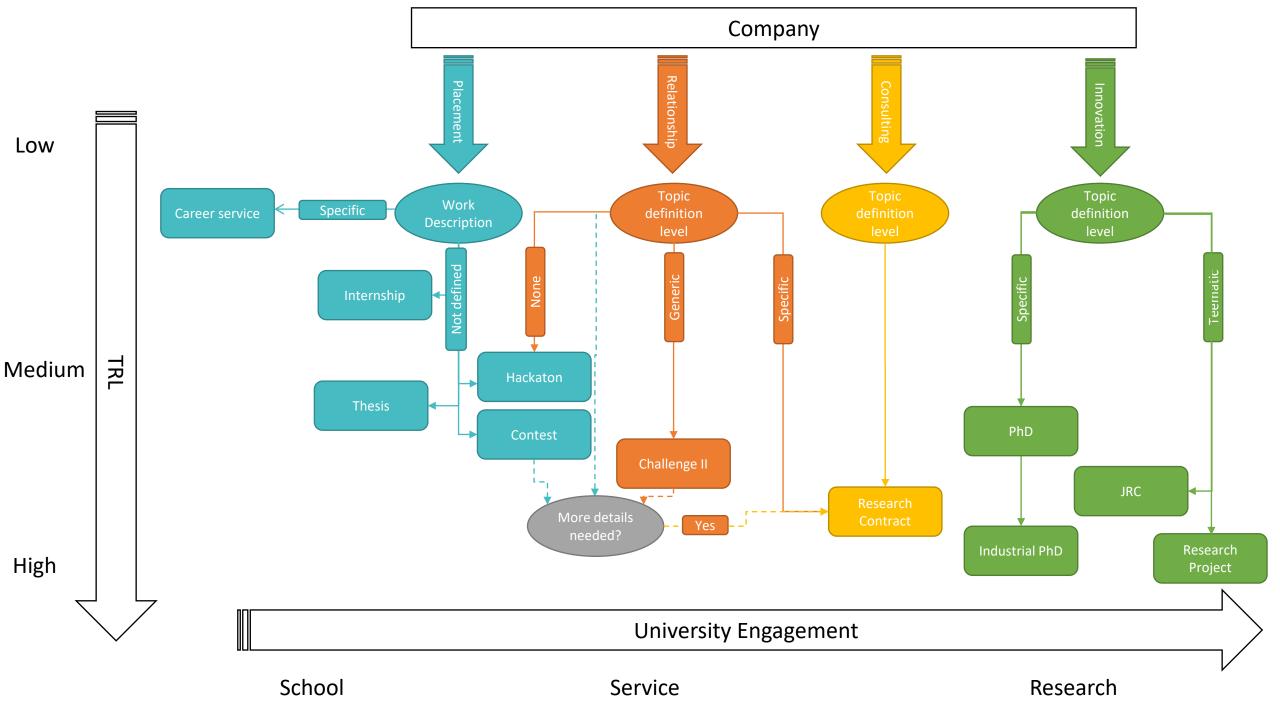


# Company need vs expectations

Push-pull approach helps the university to clarify company **need** 

- Technical/scientific competences
- Partnerships
- Long-term research projects
- Networking







### Conclusion

The success of an open innovation process does not only depend on the level of technical knowledge

### Take home messages

- Create an innovation ecosystem in which trust and awareness allow increasing relationships
- Aim at cognitive proximity
- Focus on the open innovation instruments

